



#8

SEQUENCE LISTING.ST25
SEQUENCE LISTING

<110> Garcia, Pablo D
Hardy, Stephen F
Escobedo, Jaime
Williams, Lewis T

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<130> 002441.00008

<140> 10/016,604

<141> 2001-12-07

<150> 6,0251,830

<151> 2000-12-07

<160> 225

<170> PatentIn version 3.1

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 <211> 841
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 <212> DNA
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<400> 19

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 <212> DNA
 <213> Homo sapiens

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tattactcat	attcgagcac	acactaattt	accagggcct	ttaactaaag	caaatgaaca	300
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 <212> DNA
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<210> 23
 <211> 865
 <212> DNA
 <213> Homo sapiens

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<210> 24
 <211> 866
 <212> DNA
 <213> Homo sapiens

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 <212> DNA
 <213> Homo sapiens

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 <212> DNA
 <213> Homo sapiens

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 <213> Homo sapiens

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<400> 27

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 <213> Homo sapiens

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 <223> N=A,G,C,T

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 <212> DNA
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<220>
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acctggttga	ttgatgggggt	acaagaacag	gtacgaaaaa	aatcagggcta	ctaagcccac	300
tgttaataata	gacgcagacc	aattgttagg	aacagggtcca	aattggagca	ccattaacca	360
acaatcagtg	atgcagaatg	aggctattga	acaagtaagg	gctatttggc	tcagggcctg	420
gggaaaaatt	caggacccag	gaacagcttt	ccctattaat	tcaattagac	aaggctctaa	480
agagccatat	cctgactttg	tggcaagatt	acaagatgct	gctcaaaaagt	ctattacaga	540
tgacaatgcc	cgaaaagtta	ttgtagaatt	aatggcctat	gaaaatgcaa	atccagaatg	600
tcagtcggcc	ataaagccat	taaaaggaaa	agttccagca	ggagttgatg	taattaccg	659

SEQUENCE LISTING.ST25

<210> 30
 <211> 664
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)..(664)
 <223> N=A,G,C,T

<400> 30
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 aaagaaagaa gtcccaattg aggctgaaaa aaattaaaaa agaaaaggaa tagggcatcc 180
 tttttaggag cggtoactgt agagcctcca aaaccattc cattaacttg ggaaaaaaaa 240
 aactgtntgg taaatcagca gccgnttcca aaacaaaagc tggaggcctt acacttatta 300
 ncaaagaanc cattanaaaa aggacattga gccttcattt tcgccttgga attctgtttg 360
 tgattcaaaa aaaatccggc anatggcgta tgctaactga nccattaatg ccgtaattca 420
 acccatgggg gctctcccac cccggttgcc ctntccagcc atgggtccctt ttaattataa 480
 ttgatctgaa ggattgcttt tttaccattc ctctggcaaa acaggatttt gaaaaatttg 540
 cttttaccac accagcctaa ataataaana accanccacc aggtttcagt ggaaagtatt 600
 gcctcagggg atgcttaata gttcaactat tngtcagctc aagctctgca accagttaga 660
 gacn 664

<210> 31
 <211> 743
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)..(743)
 <223> N=A,G,C,T

<400> 31
 ncctggcctt acggccgggg ctgaaaaaaaa tcaaaaaaga aaaggaatag ggcatecttt 60
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 caactgtatg gtaaatcagc agcgcttcca aaacaaaaac tggaggcttt acatttatta 180
 gcaaagaaac aattagaaaa aggacattga gccttcattt tcgccttgga attctgtttg 240
 taattcagaa aaaatccggc agatggcgta taatgccgta attcaacca tgggggctct 300
 cccaccccg tggccctctc cagccatggt cccctttaat tataattgat ctgaaggatt 360
 gcttttttac cattcctctg gcaaaacagg attttgagaa atttgcttt accacaccag 420
 cctaaataat aaagaaccag ccaccaggtt tcagtggaaa gtattgcctc aggggaatgct 480
 taatagttca actatttgtc agctcaagct ctgcaaccag ttagagacaa gttttcagac 540
 tgttacatcg ttcactatgt tgatattttg tgtgctgcag aaacgagaga caaattaatt 600
 gaccgttaca cttttctgca gacagaggtt gccaacgcgg gactgacaat aacatctgat 660
 aagattcaaa cctctactcc tttccgttac ttgggaatgc aggtagagga aaggaaaatt 720
 aaaccacaaa aaaaaaaaaa aan 743

<210> 32
 <211> 679
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)..(679)
 <223> N=A,G,C,T

<400> 32

SEQUENCE LISTING.ST25

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aacccatggg	ggctctccca	ccccggttgc	cctctccagc	catgggtccc	tttaattata	180
attgatctga	aggattgctt	ttttaccatt	cctctggcaa	aacaggattt	tgaaaaattt	240
gcttttacca	caccagccta	aataataaag	aaccagccac	caggtttcag	tggaagtat	300
tgctcangg	aatgcttaat	agttcaacta	tttgtcagct	caaagctctg	caccagnta	360
gagacaagtt	tcagactggg	tcctcgctct	atgtgatatt	ttgtgtgctg	cagaacgaga	420
gacaaattat	tggccgttca	cattttttgca	gacagagggt	gccaacgcgg	gactgacaat	480
aacatctgat	aagattaaac	ctctactcct	tccgtacttg	ggaatgcagg	tggaggaaaag	540
gaaaattaac	ccccnnaaaa	ttgaattang	aaaagaccen	ttaaagcctt	aaatgagttc	600
aaaaagttgc	taggagaaac	taattggatt	tggaganatt	aattggattt	ggcaactnta	660
ggcattccta	cttatgcn					679

<210> 33
 <211> 656
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) .. (656)
 <223> N=A,G,C,T

<400> 33						
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tggcacaatt	caagacaatg	attaaacctc	cacttgatgt	tgcaaaagag	attttgaaaa	180
atttgctttc	accacaccag	cctaaataat	aaagaaccag	ccaccagggt	tcagtggaaa	240
gtattgcctc	agggaaatgct	taatagttca	actattttgtc	agctcaagct	ctgcaaccag	300
ttagagacaa	gttttcagac	tgttacatcg	ttcactatgt	tgatattttg	tgtgctgcag	360
aaacgagaga	caaattaatt	gaccgttaca	cattttctgca	gacagagggt	gccaacgcgg	420
gactgacaat	aacatctgat	aagattcaag	cctctactcc	tttccgttac	ttgggaatgc	480
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gcattaaatg	agttttcaaaa	gttgctagga	gatactaatt	ggatttggag	atattaattg	600
gatttggcca	actctaggca	ttcctactta	tgccatgtca	aatttgttct	ctttct	656

<210> 34
 <211> 723
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) .. (723)
 <223> N=A,G,C,T

<400> 34						
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tatcagattc	tgcatatgta	gtacaggcta	caaaggatat	tgagagagcc	ctaatacaat	180
acattatgga	tgatcagtta	aaccgcgtgt	ttaatattgt	acaacaaaat	gtaagaaaaa	240
gaaatttccc	attttatatt	actcatattc	gagcacacac	taattttacca	gggcctttta	300
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aacagacaaa	aaatattgta	caacattgca	cccagtgtca	gattctacac	ctggccactc	480
aggaggcaag	agttaatccc	agaggcttat	gtcctaattg	gttatggcaa	atggatgtca	540
ttgcacgtac	cttcatttgg	aaaattgtca	tttgtccatg	tgacagntga	tacttattca	600
catttcatat	gggcaacctg	ccagacagga	gaaagtactt	nccatgtcaa	gagacattta	660
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nnn						723

SEQUENCE LISTING.ST25

<210> 35
 <211> 656
 <212> DNA
 <213> Homo sapiens

<400> 35
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 gtatcagatt ctgcatatgt agtacaggct acaaaggata ttgagagagc cctaatacaa 180
 tacattatgg atgatcagtt aaaccgctg ttttaatttgt tacaacaaaa tgtaagaaaa 240
 agaaatttcc cattttatat tactcatatt cgagcacaca ctaattttacc agggccttta 300
 actaaagcaa atgaacaagc tgacttgcta gtatcatctg cattcatgga agcacaagaa 360
 cttcatgcct tgactcatgt aaatgcaata ggattaaaaa ataaatttga tatcacatgg 420
 aaacagacaa aaaatattgt acaacattgc gcccagtgct agattctaca cctggccact 480
 caggaggtaa gagttaatcc cagaggtcta tgtcctaata tggttatggc aatggatgtc 540
 atgcacgtac cctcatttgg aaaattgtca tttgtccatg tgacagttga tacttattca 600
 catttcatat gggcaacctg ccagacagga gaaagtactt cccatgttaa gagaca 656

<210> 36
 <211> 773
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) .. (773)
 <223> N=A,G,C,T

<400> 36
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 tgtatcagat tctgcatatg tagtacaggc tacaaggat attgagagag ccctaataca 180
 atacattatg gatgatcagt taaaccgct gtttaatttg ttacaacaaa atgtaagaaa 240
 aagaaatttc ccattttata ttactcatat tcgagcacac actaatttac cagggccttt 300
 aactaaagca aatgaacaag ctgacttgct agtatcatct gcattcatgg aggcacaaga 360
 acttcatgcc ttgactcatg taaatgcaat aggattaaaa aatagatttg atatcacatg 420
 gaaacagaca aaaaatattg tacaacattg caccagtggt cagattctac acctggccac 480
 tcaggaggca agagttaatc ccagaggtct atgtcctaata gtgttatggc aaatggatgt 540
 catgcacgta ccttcatttg gaaaattgtc atttgtccat gtgacagttg atacttattc 600
 acatttcata tgggcaacct gccagacagg agaaagtact tcccatgtta agagacattt 660
 attatcttgt tttcctgtca tgggagttcc agaaaaagtt aaaacagaca atgggccang 720
 ttactgtagt aaagcagttc aaaaattcct aaatcagtggt aaaattacac atn 773

<210> 37
 <211> 721
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) .. (721)
 <223> N=A,G,C,T

<400> 37
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 nttncatggt tgcngtngtt acacctgtta acaagattnt aatcagtcta ttaacattgt 120
 atcaaattct gcatatgtag nacaggctac aaaggatatt gagagagccc taatcaaata 180
 cattatggat gatcagttaa acccgctggt taatttgtta caacaaaatg taagaaaatg 240
 aaatttccca ttttatatta ctcatattcg agcacacact aatttaccag ggccttnnac 300
 taaagcaaat gaacaagctg acttgctngt atcatctgca ttcattggaag cacaagaact 360

SEQUENCE LISTING.ST25

tcatgccttg	actcatgtaa	atgcaatagg	attaaaaaat	aaatttgata	tcacatggaa	420
acagacaaaa	aatattgtac	aacattgcac	ccagtgtcag	attctacacc	tggccactca	480
ggaggcaaga	gttaatccca	gaggtctatg	tcctaattgtg	ttatggcaaa	tggatgtcat	540
gcacgtacct	tcatttggaa	aattgtcatt	tgtccatgtg	acagntgata	cttattcaca	600
tttcatatgg	gcaacctgcc	agacangaga	aagtncttcc	catgttaaga	gacatttatt	660
attttgnntn	cctgncattg	ggagttccan	aaaaagtaaa	acagacantg	ggccaggtta	720
c						721

<210> 38
 <211> 672
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)..(672)
 <223> N=A,G,C,T

<400> 38						
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atcagattct	gcatatgtag	tacaggctac	aaaggatatt	gagagagccc	taatcaaata	180
cattatggat	gatcagttaa	acccgctggt	taatttgtta	caacaaaatg	taagaaaaag	240
aaatttccca	ttttatatta	ctcatattcg	agcacacact	aatttaccag	ggcctttaac	300
taaagcaaat	gaacaagctg	acttgctagt	atcatctgca	ttcattgaag	cacaagaact	360
tcatgccttg	actcatgtaa	atgcnatagg	attaaaaaat	aaatttgata	tcacctggaa	420
acagacaaaa	aatattgtac	aacattgcac	ccnnngtcag	attctacacc	tggccnctcn	480
ngaggcaaga	gttaatcccn	canggctatg	tcctnatgtg	ttatggcaaa	nggatgtnat	540
gcncnncct	tcctttngaa	aannnnnntt	tgtnccccnn	acannngata	cttattcacn	600
nttnntatng	gnnaccctcc	ccacnngana	aanaacctnc	ccnntnnana	naaantnntt	660
atttttnttt	tn					672

<210> 39
 <211> 757
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)..(757)
 <223> N=A,G,C,T

<400> 39						
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atcagattct	gcatatgtag	tacaggctac	aaaggatatt	gagagagccc	taatcaaata	180
cattatggat	gatcagttaa	acccgctggt	taatttgtta	caacaaaatg	taagaaaaag	240
aaatttccca	ttttatatta	ctcatattcg	agcacacact	aatttaccag	ggcctttaac	300
taaagcaaat	gaacaagctg	acttgctagt	atcatctgca	ttcatggaag	cacaagaact	360
tcatgccttg	actcatgtaa	atgcaatagg	attaaaaaat	aaatttgata	tcacatggaa	420
acagacaaaa	aatattgtac	aacattgcac	ccagtgtcag	attctacacc	tggccactca	480
ggaggcaaga	gttaatccca	gaggtctatg	tcctaattgtg	ttatggcaaa	tggatgtcat	540
gcacgtacct	tcatttggaa	aattgtcatt	tgtccatgtg	acagttgata	cttattcaca	600
tttcatatgg	gcaacctgcc	agacaggaga	aagtacttcc	catgttaaga	gacatttatt	660
atcttgtttt	cctgtcatgg	gagttccaga	aaaagttaaa	acagacaatg	ggccaggtta	720
ctggagtaaa	gcagttcaaa	aattcttaaa	tcagtgg			757

<210> 40
 <211> 777
 <212> DNA

SEQUENCE LISTING.ST25

<213> Homo sapiens

<400> 40

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cttccctttc	accctctcag	tatctccagt	ttaaaacctg	gtggattgat	gggggtacaag	180
aacagggtacg	aaaaaatcag	gctactaatc	ctgttgctta	tatagatgaa	gaccaattgc	240
taggaagagg	tccaaactgg	gacactatta	accaacaatc	agtaatgaaa	atgaggctat	300
tgaacaacta	taagggctat	ttgcctcagg	gcctgggaaa	acattcagga	cccaggaacc	360
tcatgccctt	cttttagttc	aatcagacaa	ggctctaaag	agccatatcc	agactttgtg	420
gcaagggttg	aagatgcagc	tcaaaaatcc	attgcaggta	acgcccga	agttattgta	480
gaaataatgg	cttatcaaaa	cgcaaattca	gagtgatcaat	cagccataaa	gccattaaga	540
ggaaatgttt	cagcaggagt	tgatgtaatt	acagaatatg	tgaaggcttg	tgatgggatt	600
ggaggagcta	tgcataaggc	aatgccattg	gctcaagcaa	ttacaggggt	tgctatagga	660
ggacaagtta	aaacatttgg	gggaaaatgt	tataattgtg	gtcaaatcgg	tcatctaaaa	720
aagaattgcc	cgagcttaaa	ttacccccca	aaaaaaaaaa	aaaaaaaaaa	aaaaaaa	777

<210> 41

<211> 670

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(670)

<223> N=A,G,C,T

<400> 41

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ccttatatta	gaatattatt	aaattccatt	gctcatggaa	atagacttat	ttcttatgat	120
tgggaaattc	tggctatata	ttccctttca	ccctctcagt	atctccagtt	taaaacctgg	180
tggattgatg	gggtacaaga	acagggtaccg	aaaaaatcag	gctactaatc	ctgttgctta	240
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agtaatgaaa	atgaggctat	tgaacaacta	taagggctat	ttgcctcagg	gcctgggaaa	360
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cagccataaa	gccattaaga	ggaaatgttt	cagcaggagt	tgatgtaatt	acagaatatg	600
tgaaggcttg	tgatgggatt	ggaggagcta	tgcataaggc	aatgccattg	gctcaagcaa	660
ttacaggggt						670

<210> 42

<211> 397

<212> DNA

<213> Homo sapiens

<400> 42

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tcttcccttt	caccctctca	gtatctccag	tttaaaacct	ggtggattga	tggggtacaa	180
gaacagggtac	gaaaaaatca	ggctactaat	cctgttgctt	atatagatga	agaccaattg	240
ctaggaagag	gtccaaactg	ggacactatt	aaccaacaat	cagtaatgaa	aatgaggcta	300
ttgaacaact	ataagggtca	tttgctcag	gggcctggga	aaacattcag	gacccaggga	360
acctcatgcc	cttcttttag	gttcaatcag	acaaggt			397

<210> 43

<211> 413

<212> DNA

<213> Homo sapiens

SEQUENCE LISTING.ST25

<400> 43
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gtacaacatt gcacccagtg tcagattcta cacctggcca ctcaggaagc aagagttaatt 180
cccagaggtc tatgtcctaa tgtgttatgg caaatggatg tcatgcacgt accttcattt 240
ggaaaattgt catttgtcca tgtgacagtt gatacttatt cacatttcat atgggcaacc 300
tgccagacag gagaaagtct tcccatgtta aaagacattt attatcttgt tttcctgtca 360
tgggagttcc agaaaaagtt aaaacagaca atggggccagg ttctgtagta aag 413

<210> 44
<211> 11122
<212> DNA
<213> Homo sapiens

<400> 44
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gaggcagcaa gcccttgctt gaagggggat ctggatagta tgtttctgtg tctaccaccc 360
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aaatactaatt atttaaagga taggtgaatg gaggaataa atcaattgaa ggaggctgag 660
cagatgagggt caaagaagat agagatccat aacagtaacc tcatagaagc ttatggaagc 720
atthttgacag tgctaaaagc cacataaagt tcaagtaaga cagtttcaga aatgtataaa 780
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<210> 46
 <211> 279
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(279)
 <223> Xaa=Any amino acid

<400> 46
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Val	Gln	Glu	Gln	Val	Arg	Lys	Lys	Ser	Gly	Tyr	Xaa	Ala	His	Cys	Xaa		
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Tyr	Leu	Pro	Gln	Gly	Leu	Gly	Lys	Asn	Ser	Gly	Pro	Arg	Asn	Ser	Phe		
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		195					200					205					
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225					230					235					240		
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<210> 47
 <211> 288
 <212> PRT
 <213> Homo sapiens

<400> 47

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Pro	Phe	Thr	Met	Lys	Met	Leu	Lys	Asp	Ile	Lys	Glu	Gly	Val	Lys	Gln		
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Tyr	Gly	Ser	Asn	Ser	Pro	Tyr	Ile	Arg	Thr	Val	Leu	Asp	Ser	Ile	Ala		
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His	Gly	Asn	Arg	Leu	Thr	Pro	Tyr	Asp	Trp	Glu	Ile	Leu	Ala	Lys	Ser		
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Ser	Leu	Ser	Ser	Ser	Gln	Tyr	Leu	Gln	Phe	Lys	Thr	Trp	Trp	Ile	Asp		
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Gly	Val	Gln	Glu	Gln	Val	Arg	Lys	Asn	Gln	Ala	Thr	Lys	Pro	Thr	Val		
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Asn	Ile	Asp	Ala	Asp	Gln	Leu	Leu	Gly	Thr	Gly	Pro	Asn	Trp	Ser	Thr		
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Ile	Asn	Gln	Ser	Val	Met	Gln	Asn	Glu	Ala	Ile	Glu	Gln	Val	Arg			
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Ala	Ile	Cys	Leu	Arg	Ala	Trp	Gly	Lys	Ile	Gln	Asp	Pro	Gly	Thr	Ala		
	130				135						140						
Phe	Pro	Ile	Asn	Ser	Ile	Arg	Gln	Gly	Ser	Lys	Glu	Pro	Tyr	Pro	Asp		
145					150					155					160		
Phe	Val	Ala	Arg	Leu	Gln	Asp	Ala	Ala	Gln	Lys	Ser	Ile	Thr	Asp	Asp		

SEQUENCE LISTING.ST25

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Thr	Leu	Gly	Gly	Gln	Val	Arg	Thr	Phe	Gly	Lys	Lys	Cys	Tyr	Asn	Cys		
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<210> 48
 <211> 471
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(471)
 <223> Xaa=Any amino acid

<400> 48

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Tyr	Gly	Ser	Asn	Ser	Pro	Tyr	Ile	Arg	Thr	Leu	Leu	Asp	Ser	Ile	Ala		
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Ser	Leu	Ser	Ser	Ser	Gln	Tyr	Leu	Gln	Phe	Lys	Thr	Trp	Trp	Ile	Asp		
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Gly	Val	Gln	Glu	Gln	Val	Arg	Lys	Asn	Gln	Ala	Thr	Lys	Pro	Thr	Val		
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Asn	Ile	Asp	Ala	Asp	Gln	Leu	Leu	Gly	Thr	Gly	Pro	Asn	Trp	Ser	Thr		
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Ile	Asn	Gln	Gln	Ser	Val	Met	Gln	Asn	Glu	Ala	Ile	Glu	Gln	Val	Arg		
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Ala	Ile	Cys	Leu	Arg	Ala	Trp	Gly	Lys	Ile	Gln	Asp	Pro	Gly	Thr	Ala		
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Phe	Pro	Ile	Asn	Ser	Ile	Arg	Gln	Gly	Ser	Lys	Glu	Pro	Tyr	Pro	Asp		
	145				150				155						160		
Phe	Val	Ala	Arg	Leu	Gln	Asp	Ala	Ala	Gln	Lys	Ser	Ile	Thr	Asp	Asp		
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Asn	Ala	Arg	Lys	Val	Ile	Val	Glu	Leu	Met	Ala	Tyr	Glu	Asn	Ala	Asn		
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Gly	Ala	Met	His	Lys	Ala	Met	Leu	Met	Ala	Gln	Ala	Met	Arg	Gly	Leu		
	225				230					235					240		
Thr	Leu	Gly	Gly	Gln	Val	Arg	Thr	Phe	Gly	Lys	Lys	Cys	Tyr	Asn	Cys		
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Gly	Gln	Ile	Gly	His	Arg	Lys	Arg	Ser	Cys	Pro	Gly	Leu	Asn	Lys	Gln		
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SEQUENCE LISTING.ST25

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Ser Lys Phe Asp Lys Asp	Gln Pro Leu Ser	Gly Asn Arg Lys Arg
305	310	315
Gly Gln Pro Gln Ala Pro	Gln Gln Thr Gly	Ala Phe Pro Val Lys Leu
	325	330
Phe Val Pro Gln Gly Phe	Gln Gly Gln Gln	Pro Leu Gln Lys Ile Pro
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Pro Leu Gln Gly Val Ser	Gln Leu Gln Gln	Ser Asn Ser Cys Pro Ala
	355	360
Pro Gln Gln Ala Ala Pro	Gln Xaa Ile Tyr	Val Pro Pro Lys Trp Ser
	370	375
Phe Tyr Ser Leu Glu Ser	Pro His Lys Arg	Phe Leu Glu Gly Tyr Met
385	390	395
Ala Arg Cys Gln Lys Gly	Gly Xaa Ala Phe	Glu Gly Asp Gln Val Xaa
	405	410
Ile Xaa Arg Glu Ser Lys	Phe Ile Leu Gly	Xaa Phe Thr Gln Ile Ile
	420	425
Lys Gly Glu Phe Ser Xaa	Xaa Ser Ala Pro	Leu Phe Pro Gly Val Pro
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Ile Gln Val Ile Glu Leu	Leu Asn Tyr Cys	Phe Cys Leu Met Gln Lys
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Lys Lys Lys Lys Lys	Lys Lys	
465	470	

<210> 49
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 <212> PRT
 <213> Homo sapiens

<220>
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 <222> (1)..(258)
 <223> Xaa=Any amino acid

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35 40 45
Gln Phe Lys Thr Trp Trp Ile Asp Gly Val Gln Glu Gln Val Arg Lys
50 55 60
Asn Gln Ala Thr Asn Pro Val Ala Tyr Ile Asp Glu Asp Gln Leu Leu
65 70 75 80
Gly Arg Gly Pro Asn Trp Asp Thr Ile Asn Gln Gln Ser Val Met Lys
85 90 95
Met Arg Leu Leu Asn Asn Tyr Lys Gly Tyr Leu Pro Gln Gly Leu Gly
100 105 110
Lys His Ser Gly Pro Arg Asn Leu Met Pro Phe Phe Xaa Phe Asn Gln
115 120 125
Thr Arg Leu Xaa Arg Ala Ile Ser Arg Leu Cys Gly Lys Val Ala Arg
130 135 140
Cys Ser Ser Lys Ile His Cys Arg Xaa Arg Pro Lys Ser Tyr Cys Arg
145 150 155 160
Asn Asn Gly Leu Ser Lys Arg Lys Phe Arg Val Ser Ile Ser His Lys
165 170 175
Ala Ile Lys Arg Lys Cys Phe Ser Arg Ser Xaa Cys Asn Tyr Arg Ile
180 185 190
Cys Glu Gly Leu Xaa Trp Asp Trp Arg Ser Tyr Ala Xaa Gly Asn Ala

SEQUENCE LISTING.ST25

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 210      215      220
Ile Trp Gly Lys Met Leu Xaa Leu Trp Ser Asn Arg Ser Ser Lys Lys
 225      230      235      240
Glu Leu Pro Glu Leu Lys Leu Pro Pro Lys Lys Lys Lys Lys Lys Lys
      245      250      255
Lys Lys

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<210> 50
<211> 288
<212> PRT
<213> Homo sapiens

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<220>
<221> MISC_FEATURE
<222> (1)..(288)
<223> Xaa=Any amino acid

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<400> 50
Gln Lys Asn Glu Ser Ser Lys Leu Ser Ile Thr Xaa Leu Lys Glu Gln
 1      5      10      15
Ser Trp Leu Pro Ser Leu Gln Cys Xaa Gln Asp Phe Asn Gln Ser Ile
      20      25      30
Asn Ile Val Ser Asp Ser Ala Tyr Val Val Gln Ala Thr Lys Asp Ile
 35      40      45
Glu Arg Ala Leu Ile Lys Tyr Ile Met Asp Asp Gln Leu Asn Pro Leu
 50      55      60
Phe Asn Leu Leu Gln Gln Asn Val Arg Lys Arg Asn Phe Pro Phe Tyr
 65      70      75      80
Ile Thr His Ile Arg Ala His Thr Asn Leu Pro Gly Pro Leu Thr Lys
      85      90      95
Ala Asn Glu Gln Ala Asp Leu Leu Val Ser Ser Ala Phe Met Glu Ala
      100      105      110
Gln Glu Leu His Ala Leu Thr His Val Asn Ala Ile Gly Leu Lys Asn
      115      120      125
Arg Phe Asp Ile Thr Trp Lys Gln Thr Lys Asn Ile Val Gln His Cys
 130      135      140
Thr Gln Cys Gln Ile Leu His Leu Ala Thr Gln Glu Ala Arg Val Asn
 145      150      155      160
Pro Arg Gly Leu Cys Pro Asn Val Leu Trp Gln Met Asp Val Met His
      165      170      175
Val Pro Ser Phe Gly Lys Leu Ser Phe Val His Val Thr Val Asp Thr
      180      185      190
Tyr Ser His Phe Ile Trp Ala Thr Cys Gln Thr Gly Glu Ser Thr Ser
      195      200      205
His Val Lys Arg His Leu Leu Ser Cys Phe Pro Val Met Gly Val Pro
 210      215      220
Glu Lys Val Lys Thr Asp Asn Gly Pro Gly Tyr Cys Ser Lys Ala Val
 225      230      235      240
Gln Lys Phe Leu Asn Gln Trp Lys Ile Thr His Thr Ile Gly Ile Leu
      245      250      255
Tyr Asn Ser Gln Gly Gln Ala Ile Ile Glu Arg Thr Asn Arg Thr Leu
      260      265      270
Lys Ala Gln Leu Val Lys Gln Lys Lys Lys Lys Lys Lys Lys Lys
      275      280      285

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<210> 51
<211> 286
<212> PRT

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SEQUENCE LISTING.ST25

<213> Homo sapiens

<220>

<221> MISC_FEATURE

<222> (1)..(286)

<223> Xaa=Any amino acid

<400> 51

Gln	Lys	Asn	Glu	Ser	Ser	Lys	Leu	Ser	Ile	Thr	Xaa	Leu	Lys	Glu	Gln
1				5					10					15	
Ser	Trp	Leu	Pro	Ser	Leu	Gln	Cys	Xaa	Gln	Asp	Phe	Asn	Gln	Ser	Ile
		20					25					30			
Asn	Ile	Val	Ser	Asp	Ser	Ala	Tyr	Val	Val	Gln	Ala	Thr	Lys	Asp	Ile
		35					40					45			
Glu	Arg	Ala	Leu	Ile	Lys	Tyr	Ile	Met	Asp	Asp	Gln	Leu	Asn	Pro	Leu
	50					55					60				
Phe	Asn	Leu	Leu	Gln	Gln	Asn	Val	Arg	Lys	Arg	Asn	Phe	Pro	Phe	Tyr
65				70				75							80
Ile	Thr	His	Ile	Arg	Ala	His	Thr	Asn	Leu	Pro	Gly	Pro	Leu	Thr	Lys
				85				90						95	
Ala	Asn	Glu	Gln	Ala	Asp	Leu	Leu	Val	Ser	Ser	Ala	Phe	Met	Glu	Ala
			100					105					110		
Gln	Glu	Leu	His	Ala	Leu	Thr	His	Val	Asn	Ala	Ile	Gly	Leu	Lys	Asn
		115					120					125			
Lys	Phe	Asp	Ile	Thr	Trp	Lys	Gln	Thr	Lys	Asn	Ile	Val	Gln	His	Cys
	130					135					140				
Thr	Gln	Cys	Gln	Ile	Leu	His	Leu	Ala	Thr	Gln	Glu	Ala	Arg	Val	Asn
145					150					155					160
Pro	Arg	Gly	Leu	Cys	Pro	Asn	Val	Leu	Trp	Gln	Met	Asp	Val	Met	His
				165				170						175	
Val	Pro	Ser	Phe	Gly	Lys	Leu	Ser	Phe	Val	His	Val	Thr	Val	Asp	Thr
			180					185					190		
Tyr	Ser	His	Phe	Ile	Trp	Ala	Thr	Cys	Gln	Thr	Gly	Glu	Ser	Thr	Ser
		195				200						205			
His	Val	Lys	Arg	His	Leu	Leu	Ser	Cys	Phe	Pro	Val	Met	Gly	Val	Pro
	210					215					220				
Glu	Lys	Val	Lys	Thr	Asp	Asn	Gly	Pro	Gly	Tyr	Cys	Ser	Lys	Ala	Val
225					230					235					240
Gln	Lys	Phe	Leu	Asn	Gln	Trp	Lys	Ile	Thr	His	Thr	Ile	Gly	Ile	Leu
				245					250					255	
Tyr	Asn	Ser	Gln	Gly	Gln	Ala	Ile	Ile	Glu	Arg	Thr	Asn	Arg	Thr	Leu
			260					265					270		
Lys	Ala	Gln	Leu	Val	Lys	Gln	Lys	Glu	Lys	Lys	Lys	Lys	Lys		
		275					280						285		

<210> 52

<211> 287

<212> PRT

<213> Homo sapiens

<220>

<221> MISC_FEATURE

<222> (1)..(287)

<223> Xaa=Any amino acid

<400> 52

Gln	Lys	Asn	Glu	Ser	Ser	Lys	Leu	Ser	Ile	Thr	Arg	Leu	Lys	Glu	Gln
1				5					10					15	
Ser	Trp	Leu	Pro	Ser	Leu	Gln	Cys	Xaa	Gln	Asp	Phe	Asn	Gln	Ser	Ile
		20						25				30			
Asn	Ile	Val	Ser	Asp	Ser	Ala	Tyr	Val	Val	Gln	Ala	Thr	Lys	Asp	Ile
		35					40					45			

SEQUENCE LISTING.ST25

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Glu Arg Ala Leu Ile Lys Tyr Ile Met Asp Asp Gln Leu Asn Pro Leu
 50      55      60
Phe Asn Leu Leu Gln Gln Asn Val Arg Lys Arg Asn Phe Pro Phe Tyr
 65      70      75      80
Ile Thr His Ile Arg Ala His Thr Asn Leu Pro Gly Pro Leu Thr Lys
      85      90      95
Ala Asn Glu Gln Ala Asp Leu Leu Val Ser Ser Ala Phe Met Glu Ala
      100      105      110
Gln Glu Leu His Ala Leu Thr His Val Asn Ala Ile Gly Leu Lys Asn
      115      120      125
Lys Phe Asp Ile Thr Trp Lys Gln Thr Lys Asn Ile Val Gln His Cys
      130      135      140
Ala Gln Cys Gln Ile Leu His Leu Ala Thr Gln Glu Val Arg Val Asn
      145      150      155      160
Pro Arg Gly Leu Cys Pro Asn Val Leu Trp Gln Met Asp Val Met His
      165      170      175
Val Pro Ser Phe Gly Lys Leu Ser Phe Val His Val Thr Val Asp Thr
      180      185      190
Tyr Ser His Phe Ile Trp Ala Thr Cys Gln Thr Gly Glu Ser Thr Ser
      195      200      205
His Val Lys Arg His Leu Leu Ser Cys Phe Pro Val Met Gly Val Pro
      210      215      220
Glu Lys Val Lys Thr Asp Asn Gly Pro Gly Tyr Cys Ser Lys Ala Val
      225      230      235      240
Gln Lys Phe Leu Asn Gln Trp Lys Ile Thr His Thr Ile Gly Ile Leu
      245      250      255
Tyr Asn Ser Gln Gly Gln Ala Ile Ile Glu Arg Thr Asn Arg Thr Leu
      260      265      270
Lys Ala Gln Leu Val Lys Gln Lys Lys Lys Lys Lys Lys Lys
      275      280      285

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<210> 53
<211> 288
<212> PRT
<213> Homo sapiens

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<220>
<221> MISC_FEATURE
<222> (1)..(288)
<223> Xaa=Any amino acid

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<400> 53
Gln Lys Asn Glu Ser Ser Lys Leu Ser Ile Thr Xaa Leu Lys Glu Gln
 1      5      10      15
Ser Trp Leu Pro Ser Leu Gln Cys Xaa Gln Asp Phe Asn Gln Ser Ile
      20      25      30
Asn Ile Val Ser Asp Ser Ala Tyr Val Val Gln Ala Thr Lys Asp Ile
      35      40      45
Glu Arg Ala Leu Ile Lys Tyr Ile Met Asp Asp Gln Leu Asn Pro Leu
      50      55      60
Phe Asn Leu Leu Gln Gln Asn Val Arg Lys Xaa Asn Phe Pro Phe Tyr
      65      70      75      80
Ile Thr His Ile Arg Ala His Thr Asn Leu Pro Gly Pro Leu Thr Lys
      85      90      95
Ala Asn Glu Gln Ala Asp Leu Leu Val Ser Ser Ala Phe Met Glu Ala
      100      105      110
Gln Glu Leu His Ala Leu Thr His Val Asn Ala Ile Gly Leu Lys Asn
      115      120      125
Lys Phe Asp Ile Thr Trp Lys Gln Thr Lys Asn Ile Val Gln His Cys
      130      135      140
Thr Gln Cys Gln Ile Leu His Leu Ala Thr Gln Glu Ala Arg Val Asn
      145      150      155      160

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SEQUENCE LISTING.ST25

```

Pro Arg Gly Leu Cys Pro Asn Val Leu Trp Gln Met Asp Val Met His
      165      170      175
Val Pro Ser Phe Gly Lys Leu Ser Phe Val His Val Thr Val Asp Thr
      180      185      190
Tyr Ser His Phe Ile Trp Ala Thr Cys Gln Thr Gly Glu Ser Thr Ser
      195      200      205
His Val Lys Arg His Leu Leu Phe Cys Phe Pro Val Met Gly Val Pro
      210      215      220
Glu Lys Val Lys Thr Asp Asn Gly Pro Gly Tyr Cys Ser Lys Ala Val
      225      230      235      240
Gln Glu Phe Leu Asn Gln Trp Lys Ile Thr His Thr Ile Gly Ile Leu
      245      250      255
Tyr Asn Ser Gln Gly Gln Ala Ile Ile Glu Arg Thr Asn Arg Thr Leu
      260      265      270
Lys Ala Gln Leu Val Lys Gln Lys Lys Lys Lys Lys Lys Lys Lys
      275      280      285

```

```

<210> 54
<211> 234
<212> PRT
<213> Homo sapiens

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<220>
<221> MISC_FEATURE
<222> (1)..(234)
<223> Xaa=Any amino acid

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```

<400> 54
Gln Lys Asn Glu Ser Ser Lys Leu Ser Ile Thr Xaa Leu Lys Glu Gln
1      5      10      15
Ser Trp Leu Pro Ser Leu Gln Cys Xaa Gln Asp Phe Asn Gln Ser Ile
      20      25      30
Asn Ile Val Ser Asp Ser Ala Tyr Val Val Gln Ala Thr Lys Asp Ile
      35      40      45
Glu Arg Ala Leu Ile Lys Tyr Ile Met Asp Asp Gln Leu Asn Pro Leu
      50      55      60
Phe Asn Leu Leu Gln Gln Asn Val Arg Lys Arg Asn Phe Pro Phe Tyr
      65      70      75      80
Ile Thr His Ile Arg Ala His Thr Asn Leu Pro Gly Pro Leu Thr Lys
      85      90      95
Ala Asn Glu Gln Ala Asp Leu Leu Val Ser Ser Ala Phe Met Glu Ala
      100      105      110
Gln Glu Leu His Ala Leu Thr His Val Asn Ala Ile Gly Leu Lys Asn
      115      120      125
Lys Phe Asp Ile Thr Trp Lys Gln Thr Lys Asn Ile Val Gln His Cys
      130      135      140
Thr Gln Cys Gln Ile Leu His Leu Ala Thr Gln Glu Ala Arg Val Asn
      145      150      155      160
Pro Arg Gly Leu Cys Pro Asn Val Leu Trp Gln Met Asp Val Met His
      165      170      175
Val Pro Ser Phe Gly Lys Leu Ser Phe Val His Val Thr Val Asp Thr
      180      185      190
Tyr Ser His Phe Ile Trp Ala Thr Cys Gln Thr Gly Glu Ser Thr Ser
      195      200      205
His Val Lys Arg His Leu Leu Ser Cys Phe Pro Val Met Gly Val Pro
      210      215      220
Glu Lys Lys Lys Lys Lys Lys Lys Lys Lys
      225      230

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<210> 55
<211> 293

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SEQUENCE LISTING.ST25

<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(293)
<223> Xaa=Any amino acid

<400> 55
Gln Lys Asn Glu Ser Ser Lys Leu Ser Ile Thr Xaa Leu Lys Glu Gln
1 5 10 15
Ser Trp Leu Pro Ser Leu Gln Cys Xaa Gln Asp Phe Asn Gln Ser Ile
20 25 30
Asn Ile Val Ser Asp Ser Ala Tyr Val Val Gln Ala Thr Lys Asp Ile
35 40 45
Glu Arg Ala Leu Ile Lys Tyr Ile Met Asp Asp Gln Leu Asn Pro Leu
50 55 60
Phe Asn Leu Leu Gln Gln Asn Val Arg Lys Arg Asn Phe Pro Phe Tyr
65 70 75 80
Ile Thr His Ile Arg Ala His Thr Asn Leu Pro Gly Pro Leu Thr Lys
85 90 95
Ala Asn Glu Gln Ala Asp Leu Leu Val Ser Ser Ala Phe Ile Glu Ala
100 105 110
Gln Glu Leu His Ala Leu Thr His Val Asn Ala Ile Gly Leu Lys Asn
115 120 125
Lys Phe Asp Ile Thr Trp Lys Gln Thr Lys Asn Ile Val Gln His Cys
130 135 140
Thr Gln Cys Gln Ile Leu His Leu Ala Thr Gln Glu Ala Arg Val Asn
145 150 155 160
Pro Arg Gly Leu Cys Pro Asn Val Leu Trp Gln Met Asp Val Met His
165 170 175
Val Pro Ser Phe Gly Lys Leu Ser Phe Val His Val Thr Val Asp Thr
180 185 190
Tyr Ser His Phe Ile Trp Ala Thr Cys Gln Thr Gly Glu Ser Thr Ser
195 200 205
His Val Lys Arg His Leu Leu Ser Cys Phe Pro Val Met Gly Val Pro
210 215 220
Glu Lys Val Lys Thr Asp Asn Gly Pro Gly Tyr Cys Ser Lys Ala Val
225 230 235 240
Gln Lys Phe Leu Asn Gln Trp Lys Ile Thr His Thr Ile Gly Ile Leu
245 250 255
Tyr Asn Ser Gln Gly Gln Ala Ile Ile Glu Arg Thr Asn Arg Thr Leu
260 265 270
Lys Ala Gln Leu Val Lys Gln Lys Lys Lys Lys Lys Lys Lys Thr
275 280 285
Cys Arg Pro Pro Arg
290

<210> 56
<211> 375
<212> PRT
<213> Homo sapiens

<400> 56
Glu Glu Thr Gln Val Gly Ala Pro Ala Arg Ala Glu Thr Arg Cys Glu
1 5 10 15
Pro Phe Thr Met Lys Met Leu Lys Asp Ile Lys Glu Gly Val Lys Gln
20 25 30
Tyr Gly Ser Asn Ser Pro Tyr Ile Arg Thr Leu Leu Asp Ser Ile Ala
35 40 45
His Gly Asn Arg Leu Thr Pro Tyr Asp Trp Glu Ile Leu Ala Lys Ser
50 55 60

SEQUENCE LISTING.ST25

```

Ser Leu Ser Ser Ser Gln Tyr Leu Gln Phe Lys Thr Trp Trp Ile Asp
65      70      75      80
Gly Val Gln Glu Gln Val Arg Lys Asn Gln Ala Thr Lys Pro Thr Val
      85      90      95
Asn Ile Asp Ala Asp Gln Leu Leu Gly Thr Gly Pro Asn Trp Ser Thr
      100      105      110
Ile Asn Gln Gln Ser Val Met Gln Asn Glu Ala Ile Glu Gln Val Arg
      115      120      125
Ala Ile Cys Leu Arg Ala Trp Gly Lys Ile Gln Asp Pro Gly Thr Ala
      130      135      140
Phe Pro Ile Asn Ser Ile Arg Gln Gly Ser Lys Glu Pro Tyr Pro Asp
145      150      155      160
Phe Val Ala Arg Leu Gln Asp Ala Ala Gln Lys Ser Ile Thr Asp Asp
      165      170      175
Asn Ala Arg Lys Val Ile Val Glu Leu Met Ala Tyr Glu Asn Ala Asn
      180      185      190
Pro Glu Cys Gln Ser Ala Ile Lys Pro Leu Lys Gly Lys Val Pro Ala
      195      200      205
Gly Val Asp Val Ile Thr Glu Tyr Val Lys Ala Cys Asp Gly Ile Gly
      210      215      220
Gly Ala Met His Lys Ala Met Leu Met Ala Gln Ala Met Arg Gly Leu
225      230      235      240
Thr Leu Gly Gly Gln Val Arg Thr Phe Gly Lys Lys Cys Tyr Asn Cys
      245      250      255
Gly Gln Ile Gly His Arg Lys Arg Ser Cys Pro Gly Leu Asn Lys Gln
      260      265      270
Asn Ile Ile Asn Gln Ala Ile Thr Ala Lys Asn Lys Lys Pro Ser Gly
      275      280      285
Leu Cys Pro Lys Cys Gly Lys Ala Lys His Trp Ala Asn Gln Cys His
      290      295      300
Ser Lys Phe Asp Lys Asp Gly Gln Pro Leu Ser Gly Asn Arg Lys Arg
305      310      315      320
Gly Gln Pro Gln Ala Pro Gln Gln Thr Gly Ala Phe Pro Val Lys Leu
      325      330      335
Phe Val Pro Gln Gly Phe Gln Gly Gln Gln Pro Leu Gln Lys Ile Pro
      340      345      350
Pro Leu Gln Gly Val Ser Gln Leu Gln Gln Ser Asn Ser Cys Pro Ala
      355      360      365
Pro Gln Gln Ala Ala Pro Gln
370      375

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<210> 57
 <211> 288
 <212> PRT
 <213> Homo sapiens

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<400> 57
Glu Glu Thr Gln Val Gly Ala Pro Ala Arg Ala Glu Thr Arg Cys Glu
1      5      10      15
Pro Phe Thr Met Lys Met Leu Lys Asp Ile Lys Glu Gly Val Lys Gln
      20      25      30
Tyr Gly Ser Asn Ser Pro Tyr Ile Arg Thr Val Leu Asp Ser Ile Ala
      35      40      45
His Gly Asn Arg Leu Thr Pro Tyr Asp Trp Glu Ile Leu Ala Lys Ser
      50      55      60
Ser Leu Ser Ser Ser Gln Tyr Leu Gln Phe Lys Thr Trp Trp Ile Asp
65      70      75      80
Gly Val Gln Glu Gln Val Arg Lys Asn Gln Ala Thr Lys Pro Thr Val
      85      90      95
Asn Ile Asp Ala Asp Gln Leu Leu Gly Thr Gly Pro Asn Trp Ser Thr
      100      105      110
Ile Asn Gln Gln Ser Val Met Gln Asn Glu Ala Ile Glu Gln Val Arg

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SEQUENCE LISTING.ST25

Ala	Ile	Cys	Leu	Arg	Ala	Trp	Gly	Lys	Ile	Gln	Asp	Pro	Gly	Thr	Ala
115	130					135					140				
Phe	Pro	Ile	Asn	Ser	Ile	Arg	Gln	Gly	Ser	Lys	Glu	Pro	Tyr	Pro	Asp
145					150					155					160
Phe	Val	Ala	Arg	Leu	Gln	Asp	Ala	Ala	Gln	Lys	Ser	Ile	Thr	Asp	Asp
				165					170					175	
Asn	Ala	Arg	Lys	Val	Ile	Val	Glu	Leu	Met	Ala	Tyr	Glu	Asn	Ala	Asn
			180					185					190		
Pro	Glu	Cys	Gln	Ser	Ala	Ile	Lys	Pro	Leu	Lys	Gly	Lys	Val	Pro	Ala
		195					200					205			
Gly	Val	Asp	Val	Ile	Thr	Glu	Tyr	Val	Lys	Ala	Cys	Asp	Gly	Ile	Gly
	210				215						220				
Gly	Ala	Met	His	Lys	Ala	Met	Leu	Met	Ala	Gln	Ala	Met	Arg	Gly	Leu
225					230					235					240
Thr	Leu	Gly	Gly	Gln	Val	Arg	Thr	Phe	Gly	Lys	Lys	Cys	Tyr	Asn	Cys
				245				250						255	
Gly	Gln	Ile	Gly	His	Leu	Lys	Arg	Ser	Cys	Pro	Gly	Leu	Asn	Lys	Gln
		260						265					270		
Asn	Ile	Ile	Asn	Gln	Ala	Ile	Thr	Glu	Lys	Lys	Lys	Lys	Lys	Lys	Lys
	275						280					285			

<210> 58
 <211> 268
 <212> PRT
 <213> Homo sapiens

Gln	Asp	Phe	Asn	Gln	Ser	Ile	Asn	Ile	Val	Ser	Asp	Ser	Ala	Tyr	Val
1			5					10					15		
Val	Gln	Ala	Thr	Lys	Asp	Ile	Glu	Arg	Ala	Leu	Ile	Lys	Tyr	Ile	Met
			20				25					30			
Asp	Asp	Gln	Leu	Asn	Pro	Leu	Phe	Asn	Leu	Leu	Gln	Gln	Asn	Val	Arg
	35					40					45				
Lys	Arg	Asn	Phe	Pro	Phe	Tyr	Ile	Thr	His	Ile	Arg	Ala	His	Thr	Asn
	50					55					60				
Leu	Pro	Gly	Pro	Leu	Thr	Lys	Ala	Asn	Glu	Gln	Ala	Asp	Leu	Leu	Val
65					70				75						80
Ser	Ser	Ala	Phe	Met	Glu	Ala	Gln	Glu	Leu	His	Ala	Leu	Thr	His	Val
			85					90						95	
Asn	Ala	Ile	Gly	Leu	Lys	Asn	Lys	Phe	Asp	Ile	Thr	Trp	Lys	Gln	Thr
	100							105					110		
Lys	Asn	Ile	Val	Gln	His	Cys	Thr	Gln	Cys	Gln	Ile	Leu	His	Leu	Ala
	115						120					125			
Thr	Gln	Glu	Ala	Arg	Val	Asn	Pro	Arg	Gly	Leu	Cys	Pro	Asn	Val	Leu
	130					135					140				
Trp	Gln	Met	Asp	Val	Met	His	Val	Pro	Ser	Phe	Gly	Lys	Leu	Ser	Phe
145					150					155					160
Val	His	Val	Thr	Val	Asp	Thr	Tyr	Ser	His	Phe	Ile	Trp	Ala	Thr	Cys
				165					170					175	
Gln	Thr	Gly	Glu	Ser	Thr	Ser	His	Val	Lys	Arg	His	Leu	Leu	Ser	Cys
			180					185					190		
Phe	Pro	Val	Met	Gly	Val	Pro	Glu	Lys	Val	Lys	Thr	Asp	Asn	Gly	Pro
	195						200					205			
Gly	Tyr	Cys	Ser	Lys	Ala	Val	Gln	Lys	Phe	Leu	Asn	Gln	Trp	Lys	Ile
	210					215					220				
Thr	His	Thr	Ile	Gly	Ile	Leu	Tyr	Asn	Ser	Gln	Gly	Gln	Ala	Ile	Ile
225					230					235					240
Glu	Arg	Thr	Asn	Arg	Thr	Leu	Lys	Ala	Gln	Leu	Val	Lys	Gln	Lys	Lys
			245						250					255	
Lys	Lys	Lys	Lys	Lys	Lys	Thr	Cys	Arg	Pro	Pro	Arg				
	260							265							

SEQUENCE LISTING.ST25

<210> 59
 <211> 15
 <212> DNA
 <213> Homo sapiens

<400> 59
 taggcctttg agggga 15

<210> 60
 <211> 19
 <212> DNA
 <213> Homo sapiens

<400> 60
 cattagaaaa aggacattg 19

<210> 61
 <211> 17
 <212> DNA
 <213> Homo sapiens

<400> 61
 ttggaattct gtttgta 17

<210> 62
 <211> 16
 <212> DNA
 <213> Homo sapiens

<400> 62
 taactgagcc attaat 16

<210> 63
 <211> 21
 <212> DNA
 <213> Homo sapiens

<400> 63
 agccatgggc ccctttaatt a 21

<210> 64
 <211> 17
 <212> DNA
 <213> Homo sapiens

<400> 64
 ttttaccaca ccagcct 17

<210> 65
 <211> 15
 <212> DNA
 <213> Homo sapiens

<400> 65
 ttgtcagctc aagct 15

SEQUENCE LISTING.ST25

<210> 66
 <211> 15
 <212> DNA
 <213> Homo sapiens

<400> 66
 tacatcgttc actat 15

<210> 67
 <211> 15
 <212> DNA
 <213> Homo sapiens

<400> 67
 ttaaaagcat taaat 15

<210> 68
 <211> 17
 <212> DNA
 <213> Homo sapiens

<400> 68
 agaagtccca attgagg 17

<210> 69
 <211> 15
 <212> DNA
 <213> Homo sapiens

<400> 69
 ggtcttgccg atttt 15

<210> 70
 <211> 15
 <212> DNA
 <213> Homo sapiens

<400> 70
 acaatcggtta ccaca 15

<210> 71
 <211> 15
 <212> DNA
 <213> Homo sapiens

<400> 71
 aaaagaatga gtcac 15

<210> 72
 <211> 15
 <212> DNA
 <213> Homo sapiens

<400> 72
 cagtatcact tgact 15

SEQUENCE LISTING.ST25

<210> 73	
<211> 23	
<212> DNA	
<213> Homo sapiens	
<400> 73	
ttttaatcag tctattaaca ttg	23
<210> 74	
<211> 16	
<212> DNA	
<213> Homo sapiens	
<400> 74	
aaaggatatt gagaga	16
<210> 75	
<211> 16	
<212> DNA	
<213> Homo sapiens	
<400> 75	
cctaatacaaa tacatt	16
<210> 76	
<211> 15	
<212> DNA	
<213> Homo sapiens	
<400> 76	
cgctgtttaa tttgt	15
<210> 77	
<211> 16	
<212> DNA	
<213> Homo sapiens	
<400> 77	
tgcattcatg gaagca	16
<210> 78	
<211> 15	
<212> DNA	
<213> Homo sapiens	
<400> 78	
actcaggagg caaga	15
<210> 79	
<211> 16	
<212> DNA	
<213> Homo sapiens	
<400> 79	
ttaagagaca tttatt	16

SEQUENCE LISTING.ST25

<210> 80
<211> 16
<212> DNA
<213> Homo sapiens

<400> 80
taaagcagtt caaaaa 16

<210> 81
<211> 15
<212> DNA
<213> Homo sapiens

<400> 81
aataggaatt ctcta 15

<210> 82
<211> 16
<212> DNA
<213> Homo sapiens

<400> 82
aaagctcaat tgggta 16

<210> 83
<211> 25
<212> DNA
<213> Homo sapiens

<400> 83
taggaggaca agttagaaca tttagg 25

<210> 84
<211> 24
<212> DNA
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 Ala Arg Tyr Lys Ser Phe Ser Ile Lys Lys Leu Lys Asp Met Lys Glu
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 Pro Gly Ser Thr Cys Pro Ser Phe Asn Thr Val Arg Gln Gly Ser Lys
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 Glu Pro Tyr Pro Asp Phe Val Ala Arg Leu Gln Asp Val Ala Gln Lys
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 Ser Ile Ala Asp Glu Lys Ala Arg Lys Val Ile Val Glu Leu Met Ala
 465 470 475 480
 Tyr Glu Asn Ala Asn Pro Glu Cys Gln Ser Ala Ile Lys Pro Leu Lys
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 Gly Lys Val Pro Ala Gly Ser Asp Val Ile Ser Glu Tyr Val Lys Ala
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 Cys Asp Gly Ile Gly Gly Ala Met Tyr Lys Ala Met Leu Met Ala Gln
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 Ala Ile Thr Gly Val Val Leu Gly Gly Gln Val Arg Thr Phe Gly Arg
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 Lys Cys Tyr Asn Cys Gly Gln Ile Gly His Leu Lys Lys Asn Cys Pro
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 Ser Gln Cys Arg Ser Lys Phe Asp Lys Asn Gly Gln Pro Leu Ser Gly
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 Asn Glu Gln Arg Gly Gln Pro Gln Ala Pro Gln Gln Thr Gly Ala Phe
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 Pro Ile Gln Pro Phe Val Pro Gln Gly Phe Gln Gly Gln Gln Pro Pro
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 <213> Homo sapiens

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acgaaagata	aattaattga	ctgtttataca	tttctgcaag	cagagggttg	caatgctgga	420
ctggcaatag	catctgataa	gatccaaacc	tctactcctt	ttcattattt	agggatgcag	480
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 35 40 45
 Ala Glu Gln Asp Cys Glu Lys Phe Ala Phe Thr Ile Pro Ala Ile Asn
 50 55 60
 Asn Lys Glu Pro Ala Thr Arg Phe Gln Trp Lys Val Leu Pro Gln Gly
 65 70 75 80
 Met Leu Asn Ser Pro Thr Ile Cys Gln Thr Phe Val Gly Arg Ala Leu
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 Gln Pro Val Arg Glu Lys Phe Ser Asp Cys Tyr Ile Ile His Cys Ile
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SEQUENCE LISTING.ST25

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Thr	Pro	Glu	Ala	Thr	Lys	Glu	Ile	Lys	Leu	Val	Glu	Glu	Lys	Ile	Gln
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	290				295						300				
Arg	Ile	Ile	Lys	Leu	Cys	Gly	Asn	Asp	Pro	Asp	Lys	Ile	Val	Val	Pro
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Lys	Thr	Lys	Ile	Phe	Gln	Phe	Leu	Lys	Leu	Thr	Thr	Trp	Ile	Leu	Pro
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Ala	Asp	Leu	Leu	Val	Ser	Ser	Ala	Leu	Ile	Lys	Ala	Gln	Glu	Leu	His
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Cys	Pro	Asn	Ala	Leu	Trp	Gln	Met	Asp	Val	Thr	His	Val	Pro	Ser	Phe
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Gly	Arg	Leu	Ser	Tyr	Val	His	Val	Thr	Val	Asp	Thr	Tyr	Ser	His	Phe
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Ile	Trp	Ala	Thr	Cys	Gln	Thr	Gly	Glu	Ser	Thr	Ser	His	Val	Lys	Lys
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	645	650
Gly Gln Ala Ile Val Glu Arg Thr Asn Arg Thr Leu Lys Thr Gln Leu		
	660	665
Val Lys Gln Lys Glu Gly Gly Asp Ser Lys Glu Cys Thr Thr Pro Gln		
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Met Gln Leu Asn Leu Ala Leu Tyr Thr Leu Asn Phe Leu Asn Ile Tyr		
	690	695
Arg Asn Gln Thr Thr Thr Ser Ala Glu Gln His Leu Thr Gly Lys Lys		
705	710	715
Asn Ser Pro His Glu Gly Lys Leu Ile Trp Trp Lys Asp Ser Lys Asn		
	725	730
Lys Thr Trp Glu Ile Gly Lys Val Ile Thr Trp Gly Arg Gly Phe Ala		
	740	745
Cys Val Ser Pro Gly Glu Asn Gln Leu Pro Val Trp Ile Pro Thr Arg		
	755	760
His Leu Lys Phe Tyr Asn Glu Pro Ile Arg Asp Ala Lys Lys Ser Thr		
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Ser Ala Glu Thr Glu Thr Ser Gln Ser Ser Thr Val Asp Ser Gln Asp		
785	790	795
Glu Gln Asn Gly Asp Val Arg Arg Thr Asp Glu Val Ala Ile His Gln		
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Glu Gly Arg Ala Ala Asn Leu Gly Thr Thr Lys Glu Ala Asp Ala Val		
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Ser Tyr Lys Ile Ser Arg Glu His Lys Gly Asp Thr Asn Pro Arg Glu		
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 <212> DNA
 <213> Homo sapiens

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 <213> Homo sapiens

<400> 96

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Thr	Tyr	Trp	Ala	Tyr	Val	Pro	Phe	Pro	Pro	Leu	Ile	Arg	Ala	Val	Thr
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Gly	Arg	Ala	Pro	Gly	Cys	Leu	Met	Pro	Ala	Val	Gln	Asn	Trp	Leu	Val
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Glu	Val	Pro	Thr	Val	Ser	Pro	Ile	Cys	Arg	Phe	Thr	Tyr	His	Met	Val
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Phe	Tyr	Pro	Trp	Glu	Trp	Gly	Glu	Lys	Gly	Ile	Ser	Thr	Pro	Arg	Pro
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SEQUENCE LISTING.ST25

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 370 375 380
 Val Val Gly Asn Ile Val Ile Lys Pro Asp Ser Gln Thr Ile Thr Cys
 385 390 395 400
 Glu Asn Cys Arg Leu Leu Thr Cys Ile Asp Ser Thr Phe Asn Trp Gln
 405 410 415
 His Arg Ile Leu Leu Val Arg Ala Arg Glu Gly Val Trp Ile Pro Val
 420 425 430
 Ser Met Asp Arg Pro Trp Glu Ala Ser Pro Ser Val His Ile Leu Thr
 435 440 445
 Glu Val Leu Lys Gly Val Leu Asn Arg Ser Lys Arg Phe Ile Phe Thr
 450 455 460
 Leu Ile Ala Val Ile Met Gly Leu Ile Ala Val Thr Ala Thr Ala Ala
 465 470 475 480
 Val Ala Gly Val Ala Leu His Ser Ser Val Gln Ser Val Asn Phe Val
 485 490 495
 Asn Asp Trp Gln Lys Asn Ser Thr Arg Leu Trp Asn Ser Gln Ser Ser
 500 505 510
 Ile Asp Gln Lys Leu Ala Asn Gln Ile Asn Asp Leu Arg Gln Thr Val
 515 520 525
 Ile Trp Met Gly Asp Arg Leu Met Ser Leu Glu His Arg Phe Gln Leu
 530 535 540
 Gln Cys Asp Trp Asn Thr Ser Asp Phe Cys Ile Thr Pro Gln Ile Tyr
 545 550 555 560
 Asn Glu Ser Glu His His Trp Asp Met Val Arg Arg His Leu Gln Gly
 565 570 575
 Arg Glu Asp Asn Leu Thr Leu Asp Ile Ser Lys Leu Lys Glu Gln Ile
 580 585 590
 Phe Glu Ala Ser Lys Ala His Leu Asn Leu Val Pro Gly Thr Glu Ala
 595 600 605
 Ile Ala Gly Val Ala Asp Gly Leu Ala Asn Leu Asn Pro Val Thr Trp
 610 615 620
 Val Lys Thr Ile Gly Ser Thr Thr Ile Ile Asn Leu Ile Leu Ile Leu
 625 630 635 640
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 645 650 655
 Arg Arg Asp Ser Asp His Arg Glu Arg Ala Met Met Thr Met Ala Val
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 <211> 2004
 <212> DNA
 <213> Homo sapiens

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Gly	His	Leu	Lys	Lys	Asn	Cys	Pro	Val	Leu	Asn	Lys	Gln	Asn	Ile	Thr
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 <213> Homo sapiens

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35 40 45
Pro Thr Ser Gln Lys Ile Met Thr Lys Met Gly Tyr Ile Pro Gly Lys
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SEQUENCE LISTING.ST25

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Ser Leu Glu His Arg Phe Gln	Leu Gln Cys Asp Trp	Asn Thr Ser
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 <212> PRT
 <213> Homo sapiens

<400> 109

Met Asn Pro Ser Glu Met Gln Arg Lys Ala Pro Pro Arg Arg Arg Arg	1	5	10	15
His Arg Asn Arg Ala Pro Leu Thr His Lys Met Asn Lys Met Val Thr	20	25	30	
Ser Glu Glu Gln Met Lys Leu Pro Ser Thr Lys Lys Ala Gly Pro Pro	35	40	45	
Thr Trp Ala Gln Leu Lys Lys Leu Thr Gln Leu Ala Thr Lys Tyr Leu	50	55	60	
Glu Asn Thr Lys Val Thr Gln Thr Pro Glu Ser Met Leu Leu Ala Ala	65	70	75	80
Leu Met Ile Val Ser Met Val Ser Ala Gly Val Pro Asn Ser Ser Glu	85	90	95	
Glu Thr Ala Thr Ile Glu Asn Gly Pro	100	105		

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<210> 111

SEQUENCE LISTING.ST25

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<210> 113
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<400> 113
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<400> 115
caagatggga tatataaccag g 21

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<400> 116
aaaacagaaa aaccggtg 18

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<400> 117
aatcagtgg ccgcta 16

<210> 118

SEQUENCE LISTING.ST25

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<400> 119
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<210> 120
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<400> 120
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<210> 121
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<400> 121
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<210> 122
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 <213> Homo sapiens

<400> 122
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<210> 123
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<400> 123
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<210> 124
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 <213> Homo sapiens

<400> 124
 attatattga tgatatttta 20

<210> 125

SEQUENCE LISTING.ST25

<211> 15
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<400> 125
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<210> 126
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<400> 126
tgactgttat acatt 15

<210> 127
<211> 16
<212> DNA
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<400> 127
ttcattattt agggat 16

<210> 128
<211> 19
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<400> 128
agatagaaaa tagaaaaat 19

<210> 129
<211> 15
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<400> 129
attattcaaa atact 15

<210> 130
<211> 16
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<400> 130
aataacaaaa ttatgt 16

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<211> 15
<212> DNA
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<400> 131
agacaaaata gttgt 15

<210> 132

SEQUENCE LISTING.ST25

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cagtatcact tgact	15
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<400> 135	
ttttaatcag tctattaaca ttg	23
<210> 136	
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aaaggatatt gagaga	16
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<400> 137	
cctaatacaa tacatt	16
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SEQUENCE LISTING.ST25

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<400> 139
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 <212> DNA
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<400> 140
 actcaggagg caaga 15

<210> 141
 <211> 16
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<400> 141
 ttaagagaca tttatt 16

<210> 142
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<400> 142
 taaagcagtt caaaaa 16

<210> 143
 <211> 15
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<400> 143
 aataggaatt ctcta 15

<210> 144
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<400> 144
 aaagctcaat tggтта 16

<210> 145
 <211> 16
 <212> DNA
 <213> Homo sapiens

<400> 145
 acggacgatc atttaa 16

<210> 146

SEQUENCE LISTING.ST25

<211> 666
 <212> PRT
 <213> Homo sapiens

<400> 146

Met	Gly	Gln	Thr	Lys	Ser	Lys	Ile	Lys	Ser	Lys	Tyr	Ala	Ser	Tyr	Leu
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Ser	Phe	Ile	Lys	Ile	Leu	Leu	Lys	Arg	Gly	Gly	Val	Lys	Val	Ser	Thr
			20					25					30		
Lys	Asn	Leu	Ile	Lys	Leu	Phe	Gln	Ile	Ile	Glu	Gln	Phe	Cys	Pro	Trp
		35					40					45			
Phe	Pro	Glu	Gln	Gly	Thr	Leu	Asp	Leu	Lys	Asp	Trp	Lys	Arg	Ile	Gly
	50					55					60				
Lys	Glu	Leu	Lys	Gln	Ala	Gly	Arg	Lys	Gly	Asn	Ile	Ile	Pro	Leu	Thr
	65				70					75				80	
Val	Trp	Asn	Asp	Trp	Ala	Ile	Ile	Lys	Ala	Ala	Leu	Glu	Pro	Phe	Gln
				85					90					95	
Thr	Glu	Glu	Asp	Ser	Val	Ser	Val	Ser	Asp	Ala	Pro	Gly	Ser	Cys	Ile
			100					105					110		
Ile	Asp	Cys	Asn	Glu	Asn	Thr	Gly	Lys	Lys	Ser	Gln	Lys	Glu	Thr	Glu
		115					120					125			
Gly	Leu	His	Cys	Glu	Tyr	Val	Ala	Glu	Pro	Val	Met	Ala	Gln	Ser	Thr
	130					135					140				
Gln	Asn	Val	Asp	Tyr	Asn	Gln	Leu	Gln	Glu	Val	Ile	Tyr	Pro	Glu	Thr
	145				150					155				160	
Leu	Lys	Leu	Glu	Gly	Lys	Gly	Pro	Glu	Leu	Val	Gly	Pro	Ser	Glu	Ser
				165					170					175	
Lys	Pro	Arg	Gly	Thr	Ser	Pro	Leu	Pro	Ala	Gly	Gln	Val	Pro	Val	Thr
			180					185					190		
Leu	Gln	Pro	Gln	Lys	Gln	Val	Lys	Glu	Asn	Lys	Thr	Gln	Pro	Pro	Val
		195					200					205			
Ala	Tyr	Gln	Tyr	Trp	Pro	Pro	Ala	Glu	Leu	Gln	Tyr	Arg	Pro	Pro	Pro
	210					215					220				
Glu	Ser	Gln	Tyr	Gly	Tyr	Pro	Gly	Met	Pro	Pro	Ala	Pro	Gln	Gly	Arg
	225				230					235				240	
Ala	Pro	Tyr	Pro	Gln	Pro	Pro	Thr	Arg	Arg	Leu	Asn	Pro	Thr	Ala	Pro
				245					250					255	
Pro	Ser	Arg	Gln	Gly	Ser	Lys	Leu	His	Glu	Ile	Ile	Asp	Lys	Ser	Arg
			260					265					270		
Lys	Glu	Gly	Asp	Thr	Glu	Ala	Trp	Gln	Phe	Pro	Val	Thr	Leu	Glu	Pro
		275					280					285			
Met	Pro	Pro	Gly	Glu	Gly	Ala	Gln	Glu	Gly	Glu	Pro	Pro	Thr	Val	Glu
	290					295					300				
Ala	Arg	Tyr	Lys	Ser	Phe	Ser	Ile	Lys	Lys	Leu	Lys	Asp	Met	Lys	Glu
	305				310					315				320	
Gly	Val	Lys	Gln	Tyr	Gly	Pro	Asn	Ser	Pro	Tyr	Met	Arg	Thr	Leu	Leu
			325						330					335	
Asp	Ser	Ile	Ala	His	Gly	His	Arg	Leu	Ile	Pro	Tyr	Asp	Trp	Glu	Ile
			340					345					350		
Gln	Ala	Lys	Ser	Ser	Leu	Ser	Pro	Ser	Gln	Phe	Leu	Gln	Phe	Lys	Thr
		355					360					365			
Trp	Trp	Ile	Asp	Gly	Val	Gln	Glu	Gln	Val	Arg	Arg	Asn	Arg	Ala	Ala
	370					375					380				
Asn	Pro	Pro	Val	Asn	Ile	Asp	Ala	Asp	Gln	Leu	Leu	Gly	Ile	Gly	Gln
	385				390					395				400	
Asn	Trp	Ser	Thr	Ile	Ser	Gln	Gln	Ala	Leu	Met	Gln	Asn	Glu	Ala	Ile
			405						410					415	
Glu	Gln	Val	Arg	Ala	Ile	Cys	Leu	Arg	Ala	Trp	Glu	Lys	Ile	Gln	Asp
		420						425					430		
Pro	Gly	Ser	Thr	Cys	Pro	Ser	Phe	Asn	Thr	Val	Arg	Gln	Gly	Ser	Lys
		435					440					445			
Glu	Pro	Tyr	Pro	Asp	Phe	Val	Ala	Arg	Leu	Gln	Asp	Val	Ala	Gln	Lys
	450					455					460				

SEQUENCE LISTING.ST25

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Ser Ile Ala Asp Glu Lys Ala Arg Lys Val Ile Val Glu Leu Met Ala
465          470          475          480
Tyr Glu Asn Ala Asn Pro Glu Cys Gln Ser Ala Ile Lys Pro Leu Lys
          485          490          495
Gly Lys Val Pro Ala Gly Ser Asp Val Ile Ser Glu Tyr Val Lys Ala
          500          505          510
Cys Asp Gly Ile Gly Gly Ala Met His Lys Ala Met Leu Met Ala Gln
          515          520          525
Ala Ile Thr Gly Val Val Leu Gly Gly Gln Val Arg Thr Phe Gly Arg
          530          535          540
Lys Cys Tyr Asn Cys Gly Gln Ile Gly His Leu Lys Lys Asn Cys Pro
545          550          555          560
Val Leu Asn Lys Gln Asn Ile Thr Ile Gln Ala Thr Thr Thr Gly Arg
          565          570          575
Glu Pro Pro Asp Leu Cys Pro Arg Cys Lys Lys Gly Lys His Trp Ala
          580          585          590
Ser Gln Cys Arg Ser Lys Phe Asp Lys Asn Gly Gln Pro Leu Ser Gly
          595          600          605
Asn Glu Gln Arg Gly Gln Pro Gln Ala Pro Gln Gln Thr Gly Ala Phe
          610          615          620
Pro Ile Gln Pro Phe Val Pro Gln Gly Phe Gln Gly Gln Gln Pro Pro
625          630          635          640
Leu Ser Gln Val Phe Gln Gly Ile Ser Gln Leu Pro Gln Tyr Asn Asn
          645          650          655
Cys Pro Pro Pro Gln Ala Ala Val Gln Gln
          660          665

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<210> 147
<211> 333
<212> PRT
<213> Homo sapiens

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<400> 147
Trp Ala Thr Ile Val Gly Lys Arg Ala Lys Gly Pro Ala Ser Gly Pro
1          5          10          15
Thr Thr Asn Trp Gly Ile Pro Asn Ser Ala Ile Cys Ser Ser Gly Phe
          20          25          30
Ser Gly Thr Thr Thr Pro Thr Val Pro Ser Val Ser Gly Asn Lys Pro
          35          40          45
Val Thr Thr Ile Gln Gln Leu Ser Pro Ala Thr Ser Gly Ser Ala Ala
          50          55          60
Val Asp Leu Cys Thr Ile Gln Ala Val Ser Leu Leu Pro Gly Glu Pro
65          70          75          80
Pro Gln Lys Thr Pro Thr Gly Val Tyr Gly Pro Leu Pro Lys Gly Thr
          85          90          95
Val Gly Leu Ile Leu Gly Arg Ser Ser Leu Asn Leu Lys Gly Val Gln
          100          105          110
Ile His Thr Ser Val Val Asp Ser Asp Tyr Lys Gly Glu Ile Gln Leu
          115          120          125
Val Ile Ser Ser Ser Ile Pro Trp Ser Ala Ser Pro Arg Asp Arg Ile
          130          135          140
Ala Gln Leu Leu Leu Leu Pro Tyr Ile Lys Gly Gly Asn Ser Glu Ile
145          150          155          160
Lys Arg Ile Gly Gly Leu Gly Ser Thr Asp Pro Thr Gly Lys Ala Ala
          165          170          175
Tyr Trp Ala Ser Gln Val Ser Glu Asn Arg Pro Val Cys Lys Ala Ile
          180          185          190
Ile Gln Gly Lys Gln Phe Glu Gly Leu Val Asp Thr Gly Ala Asp Val
          195          200          205
Ser Ile Ile Ala Leu Asn Gln Trp Pro Lys Asn Trp Pro Lys Gln Lys
210          215          220
Ala Val Thr Gly Leu Val Gly Ile Gly Thr Ala Ser Glu Val Tyr Gln

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SEQUENCE LISTING.ST25

225					230					235					240
Ser	Thr	Glu	Ile	Leu	His	Cys	Leu	Gly	Pro	Asp	Asn	Gln	Glu	Ser	Thr
				245					250					255	
Val	Gln	Pro	Met	Ile	Thr	Ser	Ile	Pro	Leu	Asn	Leu	Trp	Gly	Arg	Asp
			260					265					270		
Leu	Leu	Gln	Gln	Trp	Gly	Ala	Glu	Ile	Thr	Met	Pro	Ala	Pro	Ser	Tyr
		275					280				285				
Ser	Pro	Thr	Ser	Gln	Lys	Ile	Met	Thr	Lys	Met	Gly	Tyr	Ile	Pro	Gly
	290				295						300				
Lys	Gly	Leu	Gly	Lys	Asn	Glu	Asp	Gly	Ile	Lys	Ile	Pro	Val	Glu	Ala
305					310					315					320
Lys	Ile	Asn	Gln	Glu	Arg	Glu	Gly	Ile	Gly	Asn	Pro	Cys			
				325					330						

<210> 148
 <211> 956
 <212> PRT
 <213> Homo sapiens

<400> 148

Asn	Lys	Ser	Arg	Lys	Arg	Arg	Asn	Arg	Glu	Ser	Leu	Leu	Gly	Ala	Ala
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Thr	Val	Glu	Pro	Pro	Lys	Pro	Ile	Pro	Leu	Thr	Trp	Lys	Thr	Glu	Lys
			20					25					30		
Pro	Val	Trp	Val	Asn	Gln	Trp	Pro	Leu	Pro	Lys	Gln	Lys	Leu	Glu	Ala
		35				40					45				
Leu	His	Leu	Leu	Ala	Asn	Glu	Gln	Leu	Glu	Lys	Gly	His	Ile	Glu	Pro
	50				55						60				
Ser	Phe	Ser	Pro	Trp	Asn	Ser	Pro	Val	Phe	Val	Ile	Gln	Lys	Lys	Ser
65					70				75					80	
Gly	Lys	Trp	Arg	Met	Leu	Thr	Asp	Leu	Arg	Ala	Val	Asn	Ala	Val	Ile
				85					90					95	
Gln	Pro	Met	Gly	Pro	Leu	Gln	Pro	Gly	Leu	Pro	Ser	Pro	Ala	Met	Ile
			100					105					110		
Pro	Lys	Asp	Trp	Pro	Leu	Ile	Ile	Ile	Asp	Leu	Lys	Asp	Cys	Phe	Phe
		115				120						125			
Thr	Ile	Pro	Leu	Ala	Glu	Gln	Asp	Cys	Glu	Lys	Phe	Ala	Phe	Thr	Ile
	130					135					140				
Pro	Ala	Ile	Asn	Asn	Lys	Glu	Pro	Ala	Thr	Arg	Phe	Gln	Trp	Lys	Val
145				150						155					160
Leu	Pro	Gln	Gly	Met	Leu	Asn	Ser	Pro	Thr	Ile	Cys	Gln	Thr	Phe	Val
			165						170					175	
Gly	Arg	Ala	Leu	Gln	Pro	Val	Arg	Glu	Lys	Phe	Ser	Asp	Cys	Tyr	Ile
			180					185					190		
Ile	His	Cys	Ile	Asp	Asp	Ile	Leu	Cys	Ala	Ala	Glu	Thr	Lys	Asp	Lys
	195					200						205			
Leu	Ile	Asp	Cys	Tyr	Thr	Phe	Leu	Gln	Ala	Glu	Val	Ala	Asn	Ala	Gly
	210					215					220				
Leu	Ala	Ile	Ala	Ser	Asp	Lys	Ile	Gln	Thr	Ser	Thr	Pro	Phe	His	Tyr
225				230						235					240
Leu	Gly	Met	Gln	Ile	Glu	Asn	Arg	Lys	Ile	Lys	Pro	Gln	Lys	Ile	Glu
			245					250						255	
Ile	Arg	Lys	Asp	Thr	Leu	Lys	Thr	Leu	Asn	Asp	Phe	Gln	Lys	Leu	Leu
		260					265						270		
Gly	Asp	Ile	Asn	Trp	Ile	Arg	Pro	Thr	Leu	Gly	Ile	Pro	Thr	Tyr	Ala
	275						280					285			
Met	Ser	Asn	Leu	Phe	Ser	Ile	Leu	Arg	Gly	Asp	Ser	Asp	Leu	Asn	Ser
	290				295						300				
Lys	Arg	Met	Leu	Thr	Pro	Glu	Ala	Thr	Lys	Glu	Ile	Lys	Leu	Val	Glu
305					310					315					320
Glu	Lys	Ile	Gln	Ser	Ala	Gln	Ile	Asn	Arg	Ile	Asp	Pro	Leu	Ala	Pro
				325					330					335	

SEQUENCE LISTING.ST25

Leu Gln Leu Leu Ile Phe Ala Thr Ala His Ser Pro Thr Gly Ile Ile
 340 345 350
 Ile Gln Asn Thr Asp Leu Val Glu Trp Ser Phe Leu Pro His Ser Thr
 355 360 365
 Val Lys Thr Phe Thr Leu Tyr Leu Asp Gln Ile Ala Thr Leu Ile Gly
 370 375 380
 Gln Thr Arg Leu Arg Ile Ile Lys Leu Cys Gly Asn Asp Pro Asp Lys
 385 390 395 400
 Ile Val Val Pro Leu Thr Lys Glu Gln Val Arg Gln Ala Phe Ile Asn
 405 410 415
 Ser Gly Ala Trp Lys Ile Gly Leu Ala Asn Phe Val Gly Ile Ile Asp
 420 425 430
 Asn His Tyr Pro Lys Thr Lys Ile Phe Gln Phe Leu Lys Leu Thr Thr
 435 440 445
 Trp Ile Leu Pro Lys Ile Thr Arg Arg Glu Pro Leu Glu Asn Ala Leu
 450 455 460
 Thr Val Phe Thr Asp Gly Ser Ser Asn Gly Lys Ala Ala Tyr Thr Gly
 465 470 475 480
 Pro Lys Glu Arg Val Ile Lys Thr Pro Tyr Gln Ser Ala Gln Arg Ala
 485 490 495
 Glu Leu Val Ala Val Ile Thr Val Leu Gln Asp Phe Asp Gln Pro Ile
 500 505 510
 Asn Ile Ile Ser Asp Ser Ala Tyr Val Val Gln Ala Thr Arg Asp Val
 515 520 525
 Glu Thr Ala Leu Ile Lys Tyr Ser Met Asp Asp Gln Leu Asn Gln Leu
 530 535 540
 Phe Asn Leu Leu Gln Gln Thr Val Arg Lys Arg Asn Phe Pro Phe Tyr
 545 550 555 560
 Ile Thr His Ile Arg Ala His Thr Asn Leu Pro Gly Pro Leu Thr Lys
 565 570 575
 Ala Asn Glu Gln Ala Asp Leu Leu Val Ser Ser Ala Leu Ile Lys Ala
 580 585 590
 Gln Glu Leu His Ala Leu Thr His Val Asn Ala Ala Gly Leu Lys Asn
 595 600 605
 Lys Phe Asp Val Thr Trp Lys Gln Ala Lys Asp Ile Val Gln His Cys
 610 615 620
 Thr Gln Cys Gln Val Leu His Leu Pro Thr Gln Glu Ala Gly Val Asn
 625 630 635 640
 Pro Arg Gly Leu Cys Pro Asn Ala Leu Trp Gln Met Asp Val Thr His
 645 650 655
 Val Pro Ser Phe Gly Arg Leu Ser Tyr Val His Val Thr Val Asp Thr
 660 665 670
 Tyr Ser His Phe Ile Trp Ala Thr Cys Gln Thr Gly Glu Ser Thr Ser
 675 680 685
 His Val Lys Lys His Leu Leu Ser Cys Phe Ala Val Met Gly Val Pro
 690 695 700
 Glu Lys Ile Lys Thr Asp Asn Gly Pro Gly Tyr Cys Ser Lys Ala Phe
 705 710 715 720
 Gln Lys Phe Leu Ser Gln Trp Lys Ile Ser His Thr Thr Gly Ile Pro
 725 730 735
 Tyr Asn Ser Gln Gly Gln Ala Ile Val Glu Arg Thr Asn Arg Thr Leu
 740 745 750
 Lys Thr Gln Leu Val Lys Gln Lys Glu Gly Gly Asp Ser Lys Glu Cys
 755 760 765
 Thr Thr Pro Gln Met Gln Leu Asn Leu Ala Leu Tyr Thr Leu Asn Phe
 770 775 780
 Leu Asn Ile Tyr Arg Asn Gln Thr Thr Thr Ser Ala Glu Gln His Leu
 785 790 795 800
 Thr Gly Lys Lys Asn Ser Pro His Glu Gly Lys Leu Ile Trp Trp Lys
 805 810 815
 Asp Asn Lys Asn Lys Thr Trp Glu Ile Gly Lys Val Ile Thr Trp Gly
 820 825 830
 Arg Gly Phe Ala Cys Val Ser Pro Gly Glu Asn Gln Leu Pro Val Trp

SEQUENCE LISTING.ST25

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      835      840      845
Ile Pro Thr Arg His Leu Lys Phe Tyr Asn Glu Pro Ile Arg Asp Ala
 850      855      860
Lys Lys Ser Thr Ser Ala Glu Thr Glu Thr Ser Gln Ser Ser Thr Val
865      870      875      880
Asp Ser Gln Asp Glu Gln Asn Gly Asp Val Arg Arg Thr Asp Glu Val
      885      890      895
Ala Ile His Gln Glu Gly Arg Ala Ala Asn Leu Gly Thr Thr Lys Glu
      900      905      910
Ala Asp Ala Val Ser Tyr Lys Ile Ser Arg Glu His Lys Gly Asp Thr
      915      920      925
Asn Pro Arg Glu Tyr Ala Ala Cys Ser Leu Asp Asp Cys Ile Asn Gly
      930      935      940
Gly Lys Ser Pro Tyr Ala Cys Arg Ser Ser Cys Ser
945      950      955

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<210> 149
<211> 699
<212> PRT
<213> Homo sapiens

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<400> 149
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1      5      10      15
His Arg Asn Arg Ala Pro Leu Thr His Lys Met Asn Lys Met Val Thr
      20      25      30
Ser Glu Glu Gln Met Lys Leu Pro Ser Thr Lys Lys Ala Glu Pro Pro
      35      40      45
Thr Trp Ala Gln Leu Lys Lys Leu Thr Gln Leu Ala Thr Lys Tyr Leu
      50      55      60
Glu Asn Thr Lys Val Thr Gln Thr Pro Glu Ser Met Leu Leu Ala Ala
65      70      75      80
Leu Met Ile Val Ser Met Val Val Ser Leu Pro Met Pro Ala Gly Ala
      85      90      95
Ala Ala Ala Asn Tyr Thr Tyr Trp Ala Tyr Val Pro Phe Pro Pro Leu
      100      105      110
Ile Arg Ala Val Thr Trp Met Asp Asn Pro Thr Glu Val Tyr Val Asn
      115      120      125
Asp Ser Val Trp Val Pro Gly Pro Ile Asp Asp Arg Cys Pro Ala Lys
      130      135      140
Pro Glu Glu Glu Gly Met Met Ile Asn Ile Ser Ile Gly Tyr His Tyr
145      150      155      160
Pro Pro Ile Cys Leu Gly Arg Ala Pro Gly Cys Leu Met Pro Ala Val
      165      170      175
Gln Asn Trp Leu Val Glu Val Pro Thr Val Ser Pro Ile Cys Arg Phe
      180      185      190
Thr Tyr His Met Val Ser Gly Met Ser Leu Arg Pro Arg Val Asn Tyr
      195      200      205
Leu Gln Asp Phe Ser Tyr Gln Arg Ser Leu Lys Phe Arg Pro Lys Gly
      210      215      220
Lys Pro Cys Pro Lys Glu Ile Pro Lys Glu Ser Lys Asn Thr Glu Val
225      230      235      240
Leu Val Trp Glu Glu Cys Val Ala Asn Ser Ala Val Ile Leu Gln Asn
      245      250      255
Asn Glu Phe Gly Thr Ile Ile Asp Trp Ala Pro Arg Gly Gln Phe Tyr
      260      265      270
His Asn Cys Ser Gly Gln Thr Gln Ser Cys Pro Ser Ala Gln Val Ser
      275      280      285
Pro Ala Val Asp Ser Asp Leu Thr Glu Ser Leu Asp Lys His Lys His
      290      295      300
Lys Lys Leu Gln Ser Phe Tyr Pro Trp Glu Trp Gly Glu Lys Gly Ile
305      310      315      320

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SEQUENCE LISTING.ST25

Ser Thr Pro Arg Pro Lys Ile Val Ser Pro Val Ser Gly Pro Glu His
325 330 335
Pro Glu Leu Trp Arg Leu Thr Val Ala Ser His His Ile Arg Ile Trp
340 345 350
Ser Gly Asn Gln Thr Leu Glu Thr Arg Asp Arg Lys Pro Phe Tyr Thr
355 360 365
Ile Asp Leu Asn Ser Ser Leu Thr Val Pro Leu Gln Ser Cys Val Lys
370 375 380
Pro Pro Tyr Met Leu Val Val Gly Asn Ile Val Ile Lys Pro Asp Ser
385 390 395 400
Gln Thr Ile Thr Cys Glu Asn Cys Arg Leu Leu Thr Cys Ile Asp Ser
405 410 415
Thr Phe Asn Trp Gln His Arg Ile Leu Leu Val Arg Ala Arg Glu Gly
420 425 430
Val Trp Ile Pro Val Ser Met Asp Arg Pro Trp Glu Ala Ser Pro Ser
435 440 445
Val His Ile Leu Thr Glu Val Leu Lys Gly Val Leu Asn Arg Ser Lys
450 455 460
Arg Phe Ile Phe Thr Leu Ile Ala Val Ile Met Gly Leu Ile Ala Val
465 470 475 480
Thr Ala Thr Ala Ala Val Ala Gly Val Ala Leu His Ser Ser Val Gln
485 490 495
Ser Val Asn Phe Val Asn Asp Trp Gln Lys Asn Ser Thr Arg Leu Trp
500 505 510
Asn Ser Gln Ser Ser Ile Asp Gln Lys Leu Ala Asn Gln Ile Asn Asp
515 520 525
Leu Arg Gln Thr Val Ile Trp Met Gly Asp Arg Leu Met Ser Leu Glu
530 535 540
His Arg Phe Gln Leu Gln Cys Asp Trp Asn Thr Ser Asp Phe Cys Ile
545 550 555 560
Thr Pro Gln Ile Tyr Asn Glu Ser Glu His His Trp Asp Met Val Arg
565 570 575
Arg His Leu Gln Gly Arg Glu Asp Asn Leu Thr Leu Asp Ile Ser Lys
580 585 590
Leu Lys Glu Gln Ile Phe Glu Ala Ser Lys Ala His Leu Asn Leu Val
595 600 605
Pro Gly Thr Glu Ala Ile Ala Gly Val Ala Asp Gly Leu Ala Asn Leu
610 615 620
Asn Pro Val Thr Trp Val Lys Thr Ile Gly Ser Thr Thr Ile Ile Asn
625 630 635 640
Leu Ile Leu Ile Leu Val Cys Leu Phe Cys Leu Leu Leu Val Cys Arg
645 650 655
Cys Thr Gln Gln Leu Arg Arg Asp Ser Asp His Arg Glu Arg Ala Met
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<211> 968
<212> DNA
<213> Homo sapiens

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tatgacctta cccccaaccc cgtgctctct gaaacatgtg ctgtgtccac tcagggttaa 180
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cttaagagtc atcaccactc cctaattctca agtaccagg gacacaaaaa ctgcggaagg 300
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SEQUENCE LISTING.ST25

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aagggcggtg	caggatgtgc	tttgttaaac	agatgcttga	aggcagcatg	ctccttaaga	240
gtcatcacca	ctccctaate	tcaagtaccc	agggacacaa	acactgcgga	aggccgcagg	300
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ca						962

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 <212> DNA
 <213> Homo sapiens

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SEQUENCE LISTING.ST25

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<212> DNA
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<213> Homo sapiens

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<212> DNA
<213> Homo sapiens

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<210> 156
<211> 258
<212> DNA

SEQUENCE LISTING.ST25

<213> Homo sapiens

<400> 156

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ccatatgctg	aacgctgggt	ccccgggtcc	ccttctttct	ttctctatac	tttgtctctg	180
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<210> 157

<211> 2707

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(2707)

<223> N=A,G,C,T

<400> 157

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gccgccgact	tgggcacaaan	taaagaagct	gacacagtta	gctanaaaan	nnnnnctnga	300
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ctatgtgcct	ttcccgccct	taattcgggc	agtcacatgg	atggataatc	ctattgaagt	480
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tagggagagc	accaggatgt	ttaatngcct	gcantccaaa	attggttggt	agaagtacct	660
actgtcagtn	ccancagtag	attcacttat	cacatggtaa	gnngnatgtc	actcaggcca	720
cnggtaaatn	atttacanga	cttttcttat	caaagatcat	taaaatttag	ncctaaaggg	780
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cngnanantn	tgtnaatnat	tggaanaana	anttcncaa	nattgtggaa	ttcncananc	2040
nnnnatngat	caaaaattgg	caaatcaaat	taatgatctt	agacaaactg	tcatttggat	2100
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<210> 158
<211> 673
<212> PRT
<213> Homo sapiens

<220>
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<222> (1)..(673)
<223> Xaa=Any amino acid

<400> 158
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50 55 60
Trp Lys Arg Ile Gly Xaa Glu Leu Lys Gln Ala Gly Arg Lys Gly Asn
65 70 75 80
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85 90 95
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100 105 110
Pro Gly Ser Cys Ile Ile Asp Cys Asn Glu Xaa Thr Xaa Lys Lys Ser
115 120 125
Gln Lys Glu Thr Glu Xaa Leu His Cys Glu Tyr Val Xaa Xaa Xaa Xaa
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180 185 190
Gln Val Xaa Val Thr Leu Gln Pro Gln Xaa Gln Val Lys Glu Asn Lys
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Thr Gln Xaa Pro Val Ala Tyr Gln Tyr Trp Pro Pro Xaa Xaa Xaa Xaa
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Xaa Xaa Xaa Xaa Xaa Xaa Ser Gln Tyr Gly Tyr Xaa Gly Met Pro Pro
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Ala Xaa Gln Xaa Arg Xaa Pro Tyr Pro Gln Pro Pro Thr Xaa Arg Xaa
245 250 255
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SEQUENCE LISTING.ST25

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Gly Gln Pro Leu Ser Gly Asn Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
610          615          620
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<212> PRT
<213> Homo sapiens

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<223> Xaa=Any amino acid

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SEQUENCE LISTING.ST25

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